

<b>GO</b>	<b>Session G, Room 101, June 22 (Sat) PM</b>
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**Session GIGAKU & Green**

**14:00 ~ 15:05 Green Session I**

(Chairperson: Prof. Takaomi Kobayashi, Prof. Kazunori Sato )

- GO-1 “20 year Viet Nam - Japan Development Cooperation” (Invited)  
Nguyen Xuan Tien (Ministry of Planning and Investment, Vietnam)
- GO-2 “Automotive Industry Development and Economic Sustainability Impacts in the State of Guanajuato, Mexico” (Invited)  
Hector Lopez Santillana (Desarrollo Economico Sustentable del Estado de Guanajuato, Mexico)
- GO-3 “High Performance Computing Like a Green Initiative (Case of Study)” (Invited)  
Antonio Vega Corona (Consejo de Ciencia y Tecnologia del Estado de Guanajuato, Mexico)

**15:05 ~ 15:15 Coffee Break**

**15:15 ~ 16:55 Green Session II**

(Chairperson: Prof. Takaomi Kobayashi, Prof. Kazunori Sato )

- GO-4 “Effects of Metal Oxides on the Synthesis, Morphology and Electrical Conductivity of Polyaniline Nanofibers” (Invited)  
Wan Ahmad Kamil Mahmood, Mohammad Mizanur Rahman  
(Universiti Sains Malaysia, Malaysia)
- GO-5 “Shape Transformation of Silver Nanospheres to Silver Nanoplates Induced by Redox Reaction of Hydrogen Peroxide” (Invited)  
Sanong Ekgasit, Banjongsak Lamlua, Harnchana Gatemala,  
Tewarak Parnklang, Chuchaat Thammacharoen  
(Chulalongkorn University, Thailand)
- GO-6 “Calcium - Based Mixed Metal Oxides Nano Adsorbent for CO<sub>2</sub> Capture” (Invited)  
A.R. Mohamed, S. Bhatia, K.T. Lee, Z.H. Lee, C.Y. Henry Foo  
(Universiti Sains Malaysia, Malaysia)
- GO-7 “Effect of Surface Treatments of Fly Ash (Pha Lai – Vietnam) on Mechanical Properties and Structure of Polymer Composite Materials Based on Epoxy Resin DER 331” (Invited)  
Bach Trong Phuc, Pham Thi Huong, Nguyen Thanh Liem  
(Hanoi University of Science and Technology, Vietnam)

**GO      Session G, Room 105, June 23 (Sun) AM**

**9:00 ~ 10:00      Green Session III**

(Chairperson: Prof. Takaomi Kobayashi, Prof. Takashi Yamaguchi)

GO-8(EO-15) “Double Degree Programs Increase Research Collaboration and Quality of Higher Education Institutions: A Study Case of the University of Guanajuato and Nagaoka University of Technology” (Invited)

Sergio Arias-Negrete<sup>1</sup>, Erick Sánchez-Robles<sup>1</sup>, Satoshi Sugita<sup>1</sup>,  
Takaomi Kobayashi<sup>2</sup> (<sup>1</sup>Universidad de Guanajuato, Mexico, <sup>2</sup>NUT, Japan)

GO-9(EO-16) “Enhancing Research Collaborations through the Double Doctoral Degree Programme between Nagaoka University of Technology and Universiti Sains Malaysia (USM)” (Invited)

Norita Mohamed (Universiti Sains Malaysia, Malaysia)

GO-10(EO-17) “Research and Educational Collaboration and Cooperation Between the Hanoi University of Science and Technology and Nagaoka University of Technology”

Masao Fukuda<sup>1</sup>, Pham Hoang Luong<sup>2</sup> (<sup>1</sup>NUT, Japan, <sup>2</sup> Hanoi University of Science and Technology, Vietnam)

**10:00 ~ 10:20      Coffee Break**

**GO      Session G, Room 101, June 23 (Sun) AM**

**10:20 ~ 11:55      Green Session IV** (Chairperson: Prof. Takashi Yamaguchi)

GO-11 “Mg-Mn Ferrite as Substrate for Microstrip Patch Antenna and Study of Its Performance” (Invited)

Nilar Lwin, Ahmad Fauzi M. N., Srimala Sreekantan, Radzali Othman,  
Widad Ismail (Universiti Sains Malaysia, Malaysia)

GO-12 “Reaction Selectivity of Sputtered Electrodes in the Presence of Methanol and Oxygen”

Sayoko Shironita, Masafumi Ueda, Yosuke Matsumoto, Minoru Umeda  
(NUT, Japan)

GO-13 “Chrome Leather Shavings as a Source of Ceramic Materials” (Invited)  
Satoshi Sugita Sueyoshi (Universidad de Guanajuato, Mexico)

GO-14 “Utilization of Solid Waste from Lactic Acid Production for Waste Dye Treatment” (Invited)

Teerapat Seekeaw, Usa Sangwatanaroj (Chulalongkorn University,  
Thailand)

**11:55 ~ 13:00      Lunch**

<b>GO</b>	<b>Session G, Room 101, June 23 (Sun) PM</b>
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**13:00 ~ 14:15**    **Green Session V** (Chairperson: Prof. Masao Fukuda)

GO-15            “The Diverse Appliance in Wastewater Treatment of Anaerobic Fluidized Bed Reactor Using Rubber Granule as a Media” (Invited)  
Wiboonluk Pungrasmi, Phatchariya Rungkitwatananukul, Thanawat Jamikorn, Thipaporn Sirinukulwattana, Wanida Horkam, Chaiyaporn Puprasert (Chulalongkorn University, Thailand)

GO-16            “Characteristics of Gypsum Building Materials Made from Industrial Wastes” (Invited)  
Wantanee Buggakupta, Withaya Panpa (Chulalongkorn University, Thailand)

GO-17            “Study on the Effect of Axeton on Remove Protein from Natural Rubber” (Invited)  
Tran Manh Thang<sup>1</sup>, Tran Thi Mai<sup>1</sup>, Phan Trung Nghia<sup>1</sup>, Seiichi Kawahara<sup>2</sup> (<sup>1</sup>Hanoi University of Science and Technology, Vietnam, <sup>2</sup>NUT, Japan)

**14:15 ~ 14:25**    **Coffee Break**

**14:25 ~ 15:40**    **Green Session VI** (Chairperson: Prof. Masao Fukuda)

GO-18            “How to Design Solar Collector Fields for Low Temperature Industrial Applications” (Invited)  
Martin Picon-Nunez (Universidad de Guanajuato, Mexico)

GO-19            “Grafting Effects of Cu (II) on Photocatalytic Activity of Ti-Substituted Hydroxyapatite”  
Masami Nishikawa, Wenjing Yang, Yoshio Nosaka (NUT, Japan)

GO-20            “Surface Engineered Carbon Material and Its Derivatives: Selectivity, Efficiency and Reusability Study” (Invited)  
Rohana Adnan, Irfan Shah (Universiti Sains Malaysia, Malaysia)

**15:50~ 16:30**    **Panel Discussion on Pacific Rim Cooperation**

**16:30**            **Closing Remarks**

**POSTER G     June 22 (Sat), 12:00~14:00**

**GIGAKU & Green**

- GP-1:            “*In situ* HCR-FISH; A New Sensitive *in Situ* Detection Method for Identification Environmental Microorganisms”  
                  Tsuyoshi Yamaguchi<sup>1</sup>, Shuji Kawakami<sup>2</sup>, Masashi Hatamoto<sup>1</sup>,  
                  Nobuo Araki<sup>3</sup>, Takashi Yamaguchi<sup>1</sup>  
                  (<sup>1</sup>NUT, Japan, <sup>2</sup>Anan National College of Technology, Japan, <sup>3</sup>Nagaoka National College of Technology, Japan)
- GP-2:            “Synthesis and Luminescence Properties of One Dimensional (1D) ZnS, ZnS/ZnO”  
                  Do Quang Trung, Pham Thanh Huy, Nguyen Tu, Trinh Xuan Anh, Dang Thi Tuyet Mai (Hanoi University of Science and Technology, Vietnam)
- GP-3:            “Analysis of Recombinant *Trichoderma reesei* Strains Expressing  $\beta$ -Glucosidase 1”  
                  Hiroki Hirasawa<sup>1</sup>, Koki Shioya<sup>1</sup>, Hikaru Nakazawa<sup>1</sup>, Testushi Kawai<sup>2</sup>, Shuji Tani<sup>3</sup>, Takashi Kawaguchi<sup>3</sup>, Hirofumi Okada<sup>1</sup>, Yoshinori Kobayashi<sup>2</sup>, Yasushi Morikawa<sup>2</sup>, Wataru Ogasawara<sup>1</sup>  
                  (<sup>1</sup>NUT, <sup>2</sup>Tsukuba Laboratory, Bioindustry Association, <sup>3</sup>Osaka Prefecture University, Japan)
- GP-4:            “Synthesis and Laser Patterning of Bi<sub>2</sub>ZnB<sub>2</sub>O<sub>7</sub> Crystal in ZnO-Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> Glasses”  
                  Taisuke Inoue, Tsuyoshi Honma, Takayuki Komatsu (NUT, Japan)
- GP-5:            “Mullite Formation Via Pseudo-Bohemite Coated Fumed Silica Microcomposite Particle”  
                  Jose de Jesus Rocha Jimenez<sup>1</sup>, J. Merced Martínez Rosales<sup>1</sup>, Keizo Uematsu<sup>2</sup>, Satoshi Sugita<sup>1</sup>, Satoshi Tanaka<sup>2</sup>  
                  (<sup>1</sup>Universidad de Guanajuato, Mexico, <sup>2</sup>NUT, Japan)
- GP-6:            “Selective Removal of Lead Ion from Mixed Heavy Metal Waters by Using Zeolite - Polymer Composite Fiber”  
                  Kohtaroh Nakamoto, Ayaya Mikazuki, Masaru Ohshiro, Motohiro Tagaya, Takaomi Kobayashi (NUT, Japan)
- GP-7:            “The Ethanol Production from Lignocellulosic Biomass by *Trichoderma Reesei* Cellulase with *Saccharomyces Cerevisiae* on SHF and SSF Processes”  
                  Treesukon Treebupachatsakul<sup>1</sup>, Yuji Saito<sup>1</sup>, Mitsuru Nikaido<sup>2</sup>, Kazuhide Totani<sup>2</sup>, Hirofumi Okada<sup>1</sup>  
                  (<sup>1</sup>NUT, <sup>2</sup>Ichinoseki College of Technology, Japan)

- GP-8: “*In-situ* Electrochemical Synthesis of Multilayers Including of Polyaniline/Multiwall Carbon Nanotube/Tin Oxide Nanoparticles and Application of Electrical Conductive Detection to Ammonia Gas”  
Prasit Pattanauwat<sup>1,2</sup>, Duangdao Aht-Ong<sup>2</sup>  
(<sup>1</sup>NUT, Japan, <sup>2</sup> Chulalongkorn University, Thailand)
- GP-9: “Rheological Properties of Natural Rubber with Nanomatrix Structure”  
Kenichiro Kosugi, Seiichi Kawahara (NUT, Japan)
- GP-10: “Characterization of the Dehydrodiconiferyl Alcohol Catabolic Genes in *Sphingobium* Sp. Strain SYK-6”  
Kenji Takahashi<sup>1</sup>, Naofumi Kamimura<sup>1</sup>, Shojiro Hishiyama<sup>2</sup>, Hirofumi Hara<sup>3</sup>, Daisuke Kasai<sup>1</sup>, Yoshihiro Katayama<sup>4</sup>, Masao Fukuda<sup>1</sup>, Shinya Kajita<sup>5</sup>, Eiji Masai<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Forestry and Forest Products Research Institute, <sup>3</sup>Okayama University of Science, <sup>4</sup>College of Bioresource Sciences, Nihon University, <sup>5</sup>Tokyo University of Agriculture and Technology, Japan)
- GP-11: “Dose Effect of Lactosylceramide on Transformation of Cells”  
Yukiha Ishikawa, Chiemi Tareyanagi, Takeshi Sato, Kiyoshi Furukawa (NUT, Japan)
- GP-12: “Nickel and Nickel/Cobalt-Gadolinia Doped Ceria Cermet Anodes for Solid Oxide Fuel Cells”  
Jiratchaya Ayawanna<sup>1,2</sup>, Kazunori Sato<sup>1</sup>, Darunee Wattanasiriwech<sup>2</sup>, Suthee Wattanasiriwech<sup>2</sup> (<sup>1</sup>NUT, Japan, <sup>2</sup>Mae Fah Luang University, Thailand)
- GP-13: “Damage Observation of a Turbine Blade in a Micro Gas Turbine System Using Producer Gas as Fuel in a Combustion Chamber”  
Yuki Hayashi<sup>1</sup>, Satoshi Yamagishi<sup>1</sup>, Masakazu Okazaki<sup>1</sup>, Z.A Zainal<sup>2</sup>  
(<sup>1</sup>NUT, Japan, <sup>2</sup>Universiti Sains Malaysia, Malaysia)
- GP-14: “Production of Carbon Nanotubes from Chemical Vapor Deposition of Methane in a Continuous Rotary Reactor System”  
Wei-Ming Yeoh<sup>1</sup>, Siang-Piao Chai<sup>2</sup>, Keat-Teong Lee<sup>1</sup>, Abdul Rahman Mohamed<sup>1</sup> (<sup>1</sup>Universiti Sains Malaysia, <sup>2</sup>Monash University, Malaysia)
- GP-15: “Cloning and Characterization of the Rubber Degradation Enzyme Gene from *Rhizobacter Gummiphilus* NS21”  
Shunsuke Imai, Reishi Yoshida, Daisuke Kasai, Eiji Masai, Masao Fukuda (NUT, Japan)
- GP-16: “Histochemical Study of Freshwater Planarian Using Lectins”  
Yuki Shibazaki, Kiyoshi Furukawa (NUT, Japan)
- GP-17: “Colloidal Crystallization of Thermosensitive Polymer Microgels”  
Sakura Kakefuda, Hiroki Takeshita, Kenta Kimura, Masamitsu Miya, Katsuhiko Takenaka, Tomoo Shiomi (NUT, Japan)

The 2<sup>nd</sup> International GIGAKU Conference in Nagaoka

- GP-18: “Performance of a Hall Connection MHD Power Generator in Nonequilibrium Plasma”  
Ulderico Spadavecchia, Kazumasa Takahashi, Toru Sasaki, Takashi Kikuchi, Tsukasa Aso, Nobuhiro Harada (NUT, Japan)
- GP-19: “Fabrication of CuBi<sub>2</sub>O<sub>4</sub> Photo-Cathode for Hydrogen Evolution by Electrochemical Method”  
Yukihiro Nakabayashi, Masami Nishikawa, Yoshio Nosaka (NUT, Japan)
- GP-20: “Degradation Characteristics of an Aerobic *Cis*-Dichloroethene-Degrading Bacterium”  
Kenta Yonedzuka<sup>1</sup>, Naoto Araki<sup>1</sup>, Daisuke Kasai<sup>1</sup>, Atsushi Yamazoe<sup>2</sup>, Mitsuru Numata<sup>2</sup>, Akira Hosoyama<sup>2</sup>, Nobuyuki Hujita<sup>2</sup>, Eiji Masai<sup>1</sup>, Masao Fukuda<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>National Institute of Technology and Evaluation, Japan)
- GP-21: “Removal of Heavy Metal Ions from an Aqueous Environment by the Photoelectrodeposition Effect of Ceria-based Oxide Particles”  
Yuhei Hoshi, Teoh WahTzu, Hiroshi Nishiyama, Nobuo Saito, Yasunobu Inoue, Kazunori Sato (NUT, Japan)
- GP-22: “Effect of Ultrasound on FT-IR Spectra of Poly (Acrylic Acid-co-*N*-Hydroxyethylacrylamide) in Aqueous Solution”  
Josue Addiel Venegas-Sanchez, Motohiro Tagaya, Takaomi Kobayashi (NUT, Japan)
- GP-23: “Investigation of Capacitive Coupled MHD Generator with Model Rocket Engine”  
Sho Takayanagi, Kazumasa Takahashi, Toru Sasaki, Takashi Kikuchi, Tsukasa Aso, Nob. Harada (NUT, Japan)
- GP-24: “Isolation and Characterization of a Catabolic Gene for a Diarylpropane-Type Lignin-Derived Compound”  
Miki Nambo<sup>1</sup>, Naofumi Kamimura<sup>1</sup>, Daisuke Kasai<sup>1</sup>, Shojiro Hishiyama<sup>2</sup>, Yoshihiro Katayama<sup>3</sup>, Masao Fukuda<sup>1</sup>, Shinya Kajita<sup>4</sup>, Eiji Masai<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Forestry and Forest Products Research Institute, <sup>3</sup>College of Bioresource Sciences, Nihon University, <sup>4</sup>Tokyo University of Agriculture and Technology, Japan)
- GP-25: “Characterization of Expansin-Like Proteins from the Filamentous Fungus *Trichoderma Reesei*”  
Yosuke Shida, Haruna Sato, Wataru Ogasawara (NUT, Japan)
- GP-26: “Reproduction of Anaerobic Sulfur Oxidation Reaction by Using Potential Control Device and Analysis of Microbial Communities Involved in the Reaction”  
Aida Azrina Azmi, Koh Usui, Masamitsu Yamamoto, Akinobu Nakamura, Masashi Hatamoto, Takashi Yamaguchi (NUT, Japan)

- GP-27: “Characterization of Nitriding Stainless Steel as Bipolar Plate for Polymer Electrolyte Fuel Cell”  
Shengnan Hua<sup>1</sup>, Sayoko Shironita<sup>1</sup>, Minoru Umeda<sup>1</sup>, Shuichi Suzuki<sup>2</sup>, Takaaki Mizukami<sup>2</sup>, Kunio Nakatsuyama<sup>3</sup>, Kazuma Miura<sup>4</sup>, Kenichi Souma<sup>5</sup>  
(<sup>1</sup>NUT, <sup>2</sup>Hitachi, Ltd., Hitachi Research Laboratory, <sup>3</sup>Nakatsuyama Heat Treatment Co., Ltd., <sup>4</sup>Industrial Research Institute of Niigata Prefecture, <sup>5</sup>Hitachi Industrial Equipment Systems Co., Ltd., Japan)
- GP-28: “Quantitative Analysis of OH Radicals Formed on the Surface of TiO<sub>2</sub> Photocatalysts in Aqueous Solution by Fluorescence Probe Method”  
Jie Zhang, Yoshio Nosaka (NUT, Japan)
- GP-29: “Deformation and Damage during Creep of a Gas Turbine Blade Material under a Significant Temperature Gradient Condition”  
Subramanian Rajivgandhi, Satoshi Yamagishi, Masakazu Okazaki  
(NUT, Japan)
- GP-30: “Separation Properties of Poly (Ethersulfone) Hollow Fiber Membrane Embedded Molecularly Imprinted Polymer Particles for Vanillin”  
Nor Nadiyah Binti Mohamad Yusof<sup>1,2</sup>, Takaomi Kobayashi<sup>1</sup> (<sup>1</sup>NUT, Japan, <sup>2</sup>University Kuala Lumpur, Malaysia)
- GP-31: “Identification of Permiase Genes Involved in Lactose Uptake in *Trichoderma Reesei*”  
Hiroki Taniguchi, Juliano O. Porciuncula, Takanori Furukawa, Yosuke Shida, Wataru Ogasawara (NUT, Japan)
- GP-32: “Identification of Gene Expression in Sterile Soil from *Rhodococcus Jostii* RHA1”  
Toju Iino<sup>1</sup>, Yong Wang<sup>2</sup>, Keisuke Miyauchi<sup>3</sup>, Daisuke Kasai<sup>1</sup>, Eiji Masai<sup>1</sup>, Takeshi Fujii<sup>2</sup>, Naoto Ogawa<sup>4</sup>, Masao Fukuda<sup>1</sup>  
(<sup>1</sup>NUT, <sup>2</sup>Natl. Inst. Agro-Environ. Sic., <sup>3</sup>Tohoku Gakuin Univ. <sup>4</sup>Shizuoka Univ., Japan)
- GP-33: “Relationship between the Formation Behavior and Cooling Conditions for Melts in the Composition of Spinel-Type Lithium Iron Silicate Crystals”  
Togashi Takuya, Tsuyoshi Honma, Takayuki Komatsu (NUT, Japan)
- GP-34: “Study on Generation of Warm Dense Matter of an Insulator by Flyer Acceleration Using Electron Beam Generated by Intense Pulsed Power Generator “ETICO-II””  
Fumihito Tamura<sup>1</sup>, Ryota Hayashi<sup>1</sup>, Takahiro Kudo<sup>1</sup>, Arata Watabe<sup>1</sup>, Kenji Kashine<sup>2</sup>, Akira Tokuchi<sup>1,3</sup>, Takashi Kikuchi<sup>1</sup>, Kazumasa Takahashi<sup>1</sup>, Toru Sasaki<sup>1</sup>, Tsukasa Aso<sup>1</sup>, Nob. Harada<sup>1</sup>, Weihua Jiang<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Yuge National College of Maritime Technology, <sup>3</sup>Pulsed Power Japan Laboratory Ltd., Japan)

- GP-35: “Analysis of Lignin Degradation System of Maitake Mushroom (*Grifola Frondosa*) for Bioconversion of Waste Mushroom Bed to Valuable Chemicals”  
Keigo Kojima, Takanori Furukawa, Yosuke Shida, Wataru Ogasawara (NUT, Japan)
- GP-36: “Cytocompatible *Agave Tequilana* Cellulose Used as Scaffold Films for Tissue Regeneration”  
Karla Lizette Tovar-Carrillo, Motohiro Tagaya, Takaomi Kobayashi (NUT, Japan)
- GP-37: “Crystallization and Photoluminescence of  $\beta'$ -Eu<sub>2</sub>(MoO<sub>4</sub>)<sub>3</sub> in Europium Molybdenum Borate Glass”  
Yong Wang, Tsuyoshi Honma, Takayuki Komatsu (NUT, Japan)
- GP-38: “Cell Surface Structure of the Filamentous Fungus *Trichoderma reesei*”  
Shingo Tahara<sup>1</sup>, Mikiko Nitta<sup>2</sup>, Yosuke Shida<sup>1</sup>, Yoshiki Horikawa<sup>3</sup>, Junji Sugiyama<sup>3</sup>, Masako Osumi<sup>4</sup>, Wataru Ogasawara<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Japan Science and Technology Agency, <sup>3</sup>Kyoto University, <sup>4</sup>Integrated Imazing Research Support, Japan)
- GP-39: “Prussian Blue Redox Reaction Studied by Electrochemical Quartz Crystal Microbalance Technique”  
Yuta Takahashi, Tsukasa Endo, Sayoko Shironita, Akira Nakazawa, Minoru Umeda (NUT, Japan)
- GP-40: “Conjugated Polyaminoanthracenes Prepared by Chemical Oxidation Polymerization”  
Kun Wang<sup>1</sup>, Motohiro Tagaya<sup>1</sup>, Shijun Zheng<sup>2</sup>, Takaomi Kobayashi<sup>1</sup> (<sup>1</sup>NUT, Japan, <sup>2</sup>Zhengzhou University, China)
- GP-41: “Measuring Performance of a DHS-USB System for Nitrification and Denitrification of Marine Aquarium Water”  
Ayato Furukawa<sup>1</sup>, Akinobu Nakamura<sup>1</sup>, Masahito Mori<sup>2</sup>, Hironobu Katsumata<sup>3</sup>, Mutsumi Kawamata<sup>3</sup>, Masashi Hatamoto<sup>1</sup>, Takashi Yamaguchi<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Yokohama MM laboratory, <sup>3</sup>Taisei corporation, Japan)
- GP-42: “Enhancing Xylanase Activity and Saccharification Ability of *Trichoderma Reesei* by Xylanase III”  
Koki Shioya, Masahiro Yuki, Wataru Ogasawara (NUT, Japan)
- GP-43: “Direct Observation of Particle Fluidity in Slurry with Various Solid Loadings”  
Yoshihiro Nagasawa, Zenji Kato, Keizo Uematsu, Satoshi Tanaka (NUT, Japan)
- GP-44: “Microbial Detoxification of a Persistent Environmental Contaminant, Tris (2-Chloroethyl) Phosphate”  
Yutaka Onda, Kaneharu Miura, Katsumasa Abe, Shouji Takahashi, Yoshio Kera (NUT, Japan)



- GP-45: “Reduction Reaction of Carbon Dioxide at Pt-Ru/C Cathode of Membrane Electrode Assembly”  
Kazutaka Sato, Ko Karasuda, Sayoko Shironita, Minoru Umeda (NUT, Japan)
- GP-46: “High Frequency Sono-Treatment on Regeneration of *Agave Tequilana* Waste Fibers for Heavy Metal Ion Adsorbents”  
Kohsuke Hirano<sup>1</sup>, Motohiro Tagaya<sup>1</sup>, Satoshi Sugita Sueyoshi<sup>2</sup>, Takaomi Kobayashi<sup>1</sup> (<sup>1</sup>NUT, Japan, <sup>2</sup>Universidad de Guanajuato, Mexico)
- GP-47: “Characterization of the 5,5’-Dehydrodivanillate *O*-Demethylase Genes in *Sphingobium* Sp. Strain SYK-6 and Their Transcriptional Regulation”  
Taichi Yoshikata<sup>1</sup>, Kazuya Suzuki<sup>1</sup>, Naofumi Kamimura<sup>1</sup>, Daisuke Kasai<sup>1</sup>, Hirofumi Hara<sup>2</sup>, Yuichiro Otsuka<sup>3</sup>, Masaya Nakamura<sup>3</sup>, Yoshihiro Katayama<sup>4</sup>, Masao Fukuda<sup>1</sup>, Eiji Masai<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Okayama University of Science, <sup>3</sup>Forestry and Forest Products Research Institute, <sup>4</sup>College of Bioresource Sciences, Nihon University, Japan)
- GP-48: “Electrochemical Properties and Microstructural Characterization of Ceria-based Cermet Anode for a Direct-Methane Solid Oxide Fuel Cell”  
Yuhei Takayasu<sup>1</sup>, Kenichi Yoshida<sup>2</sup>, Jiratchaya Ayawanna<sup>1</sup>, Teoh WahTzu<sup>1</sup>, Kazunori Sato<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Tokyo Metropolitan College of Industrial Technology, Japan)
- GP-49: “Transcriptional Regulation of the Catabolic Genes for Vanillate and Syringate in *Sphingobium* Sp. Strain SYK-6”  
Shusuke Umeda<sup>1</sup>, Daisuke Kasai<sup>1</sup>, Naofumi Kamimura<sup>1</sup>, Hirofumi Hara<sup>2</sup>, Masao Fukuda<sup>1</sup>, Eiji Masai<sup>1</sup> (<sup>1</sup>NUT, <sup>2</sup>Okayama University of Science, Japan)
- GP-50: “Photoresponse of Microphase Separation of Liquid Crystalline Block Copolymers”  
Takayuki Okazawa, Hiroki Takeshita, Ryosuke Kudo, Kazuhiro Haginoya, Masamitsu Miya, Katsuhiko Takenaka, Tomoo Shiomi (NUT, Japan)
- GP-51: “Photoconductive Property of Layered Organic Structure Incorporating Metal-Free Phthalocyanine and Triphenylamine Derivative”  
Mitsuhiko Katagiri, Yukari Osada, Sayoko Shironita, Akira Nakazawa, Minoru Umeda (NUT, Japan)
- GP-52: “Genome-Wide Functional Analysis of ACEII, a Zn (II)<sub>2</sub>Cys<sub>6</sub> Transcription Factor Involved in the Regulation of Cellulase and Xylanase Genes in *Trichoderma Reesei*”  
Takanori Furukawa, Yosuke Shida, Wataru Ogasawara (NUT, Japan)